

important features the insect is like the Aphodiinae, especially in the occurrence of two spurs to the hind tibia. The incapacity for flight, the absence of eyes, and the remarkable specialization of the four posterior feet are features quite peculiar to the genus, and no doubt all are related to myrmecophilous or termitophilous habits. In certain respects there is a marked resemblance to *Chaetopisthes*, the almost equally anomalous genus in whose company it was apparently taken by Father Cardon. In the organs of the mouth, the atrophy of the labium, and the spinose maxilla the likeness is striking, but the entirely different structure of the legs and sternum seems to prove that the similarities are due to a similar manner of life rather than a real relationship. In *Chaetopisthes* the eyes are very well developed, the legs and tarsi long, the middle coxæ contiguous, and there is only a single spur to the hind tibia, as in the Coprinae. A series of specimens of *Chaetopisthes* taken by Cardon in the same locality (and probably in the same nests) as the new form show that *C. wasmanni*, Schm., is the male of *C. fulvus*, Westw., the peculiar hair-fringes being characteristic of the female and the thoracic lobes of the male.

XLIX.—*A peculiar new Genus of Australian Beetles.*

By GILBERT J. ARROW, F.Z.S., F.E.S.

(Published by permission of the Trustees of the British Museum.)

IN forwarding, through Dr. Marshall, of the Imperial Bureau of Entomology, a collection of insects from North Queensland, Dr. Illingworth has recorded for the first time a remarkable habit in certain species related to the great genus *Onthophagus*. Two species were found by him attached to the fur of wallabies, and evidently awaiting the droppings which form the food of most of the group. Specimens were even found within the cloaca. That this was no exceptional occurrence is shown by the adaptive modification of the feet in both species. In *Onthophagus* the last joint and the claws are exceedingly slender, and the latter feeble and quite simple in form; but in these wallaby-borne species this joint of the foot forms a strong grasping apparatus, and its enlargement makes the insects easily recognizable. Five species are known to me which share this peculiarity, and are also alike in their general form and in the absence of horns or other sexual armature. All of them seem to be confined to

Northern Australia. They evidently form a natural group, which I propose to call

MACROPOCOPRIS, gen. nov.

Corpus compactum. Caput et thorax inermes. Tarsorum omnium articulus ultimus magnus, conicus. Ungues validi, fortiter flexi, basi lobati. Scutellum invisibile. Cetera ut in genere *Onthophago*.

The characteristic claw-structure is very peculiar. The claw-joint is enlarged and conical, with its broad end distal and its lower edge produced in the form of a strong blunt spine between the claws. The claw is very long and doubled upon itself so that the basal part forms a strong lobe, separated only by a narrow space from the reflexed terminal part. A leaf-like scale sharply pointed at the end flanks each claw externally. There is only a single pair of long terminal setæ at the upper edge of the claw-joint, and the pulvillus, usually represented by a pair of setæ at the base of the claws beneath, is absent. This arrangement evidently enables the beetle to cling to the hair of the wallaby, which would be impossible for *Onthophagus*, with its quite simple and gently curved claws.

In his synopsis of the Australian species of *Onthophagus* (Trans. Roy. Soc. S. Australia, xxvii. 1903, p. 265), Blackburn has included two species of *Macropocopris* in his Group IV., in which the pronotum is "pseudo-margined" (viz., *kingi*, Har., and *parvus*, Blackb.), and three in Group VI., in which it is without a basal margin (*inermis*, Macl., *muticus*, Macl., and *submuticus*, Blackb.), while *O. carmodensis*, Blackb., subsequently described, falls into his Group V. I believe his *O. muticus* and *submuticus* to be really identical with *O. kingi* and *parvus* respectively, and *inermis*, Macl., to be the female of the latter. The supposed difference in the prothoracic margin is illusory. The pseudo-margin is present in all, but is invisible when the pronotum and elytra are in close contact, being overlapped by the base of the elytra.

Blackburn has remarked, in his revision of the Australian *Onthophagi* just referred to, that he knew of no external feature by which the sexes could be determined positively in all cases. D'Orbigny, who devoted many years to the study of the same vast genus, made the same confession. But a careful examination of the shape of the last ventral segment will enable this to be done without difficulty. In the female this segment is of nearly equal breadth throughout, whilst in

the male it is always considerably narrowed in the middle. This applies equally to the species of the new genus. The type of *O. carmodensis*, Blackb., a species the sex of which Blackburn was unable to decide, is a female, but the male is practically identical with it, except for a rather stronger curvature of the front tibiæ. The more dilated prothorax, by which he has distinguished *O. submuticus* from *inermis*, MacL., is also a peculiarity of the male.

The known species of the new genus may be tabulated as follows:—

A. Clypeus rounded or lightly emarginate.	
B. Upper surface very smooth.	
C. Metasternum strongly punctured	<i>parvus</i> , Blackburn.
c. Metasternum unpunctured.	
D. Short	<i>kingi</i> , Har.
d. Elongate	<i>prehensilis</i> , sp. n.
b. Upper surface strongly punctured	<i>symbioticus</i> , sp. n.
a. Clypeus bidentate	<i>carmodensis</i> , Blackb.

Macropocopris prehensilis, sp. n.

Niger, subopacus, tarsis rufis clavaque antennali flava; elongato-ovalis, convexus, capite absque carina, clypeo transverse rugoso, margine rotundato, fronte lævissime punctato; pronoto fere lævi, antice et lateraliter subtilissime punctato, haud lato, lateribus arcuatis, haud angulatis aut sinuatis, angulis anticis haud acutis, basi supra haud marginato, medio obtuse angulato; elytris subtiliter striatis, striis haud punctatis, interstitiis vix perspicue punctulatis; pygidio subtiliter punctato; corpore subtus lævi, subnitido, metasterno impunctato.

Long. 10.5 mm.; lat. max. 6.5 mm.

Hab. N. Queensland: Kuranda (Nov.—*G. E. Bryant*).

A single male specimen was found.

M. prehensilis is a large species, slightly larger than any other known, and distinctly more elongate. It is quite black but not shining above and very smooth above and beneath, almost without hair, except upon the legs, with the metasternum quite devoid of punctures. The head is without carinæ (in the male), the clypeus strongly rounded in front and transversely wrinkled above, the forehead very lightly punctured and the eyes fairly large and very smooth. The pronotum is very convex, scarcely perceptibly punctured, with the sides strongly rounded but not angulated, the front angles rather blunt and the hind angles indicated. The elytra are also very convex, very finely and lightly striated, with scarcely perceptible puncturation in the intervals. The pygidium is exceedingly feebly and sparsely punctured.

The tarsi are fairly slender, and the claws scarcely enlarged but of the characteristic form.

Macropocopris symbioticus, sp. n.

Æneo-niger, pedibus rufis antennisque flavis; parvus, breviter ovatus, nitidus, corpore supra toto fortiter punctato, extus breviter setoso, capite ubique fere æqualiter punctato, clypeo medio leviter emarginato, a fronte carina recta valde elevata separato, fronte carina lævi instructo, oculis fortiter granulatis; pronoto fortiter sat crebre punctato, lateraliter parce setoso, margine basali supra haud visibili; elytris profunde striatis, striis fortiter punctatis, interstitiis minutius irregulariter punctatis, lateraliter parce setosis; pygidio fortiter punctato; tibia antica calcare arcuato, postica calcare recto, apice bifido, armatis.

Long. 4-5 mm.; lat. max. 3 mm.

Hab. N. Queensland: Cairns (July).

About fifty specimens, all taken upon wallabies, have been sent by Dr. Illingworth.

This species differs from all the previously described forms by its smaller size, the much stronger puncturation of its upper surface, the fine setæ at the sides of the pronotum and elytra, distinctly emarginate but not notched clypeus, the slight posterior carina in addition to the strong anterior one, coarsely granulated eyes, and the bifid spur to the hind tibia. It is black with a metallic tinge above, the legs and clypeus red (and generally also the front margin of the pronotum), and the antennæ yellow. In some specimens an irregular red spot is visible near the posterior margin of the elytra, and occasionally one appears upon the shoulder also. The two sexes are practically identical in external characters, but the male has the spur of the front tibia more strongly bent than the female.

L.—A new Genus of Clavicorn Beetles.

By GILBERT J. ARROW, F.Z.S., F.E.S.

(Published by permission of the Trustees of the British Museum.)

THE curious little insect here described has been sent to me for identification by Professor R. Thaxter, of Harvard University, as the carrier of a parasitic fungus, *Dimeromyces ametrothecalis*, Thaxter. The two specimens, which are all